CONSOLIDATED INFORMATION TECHNOLOGY SERVICES TASK ASSIGNMENT (TA)

1. **TITLE:** (C101) NASA Engineering and Safety Center (NESC) IT Support

   TA No: AL001-Rev9
   Task Area Monitor: **Alternate Task Area Monitor:**
   NASA POC: **Software Control Class:**   Critical
   Type of Task: Recurring Task

2. **BACKGROUND**

   The NESC is an independent organization with the objective to improve safety and NASA mission success by performing in-depth independent engineering assessments, testing, and analysis to uncover technical vulnerabilities and to determine appropriate preventative and corrective actions for problems, trends or issues within NASA's programs, projects and institutions. The NESC draws upon the best engineering expertise from across the Agency and includes partnerships with other government agencies, national laboratories, universities and industry. By engaging all NASA Centers and Headquarters in the mutual goal of increasing safety through engineering excellence, the NESC operates as an Agency organization.

3. **OBJECTIVE**

   The objective of this task assignment is to provide information technology support to the NESC for their roles and responsibilities to the Agency.

   The contractor shall actively support the services described in this task between the hours of 6 a.m. and 6 p.m. eastern, Monday through Friday, excluding Federal holidays. Where required, the contractor shall create prior, proactive notification procedures for service interruptions and security breaches, and shall follow Center and Agency guidelines where applicable.

   This task will be responsible for the application development including database, systems, and web development. It will include all systems required to implement the application (servers, databases, application software, middleware, etc.). It will also absorb the responsibilities defined in task SLB 014.85 when funding on that task is depleted. Responsibilities will also include acting as system administrator for the NESC database

extension (currently under development)to the Agency's Incident Reporting Information System(IRIS). All necessary network conditions will be part of this task (firewall constraints, access controls, etc.). Interaction and collaboration between all groups concerned; application development, database, and system group will be integral to this tasks success. It will be expected that the Task Lead will be in communication and collaboration with all parties in order to provide the most effective and efficient solution. No one area will own this activity, it will be a partnership.

The current web sites and tools being utilized by NESC as well as any future adopted sites and tools will be covered by this task. The main page is located at http://nesc.nasa.gov and current tools being used are intranets.com, etc.

4. GENERAL IT SUPPORT SERVICES

Services Specified Through Exhibit A:
The contractor shall support members of the NESC in assessing information technology tools; developing, implementing, and maintaining applications and web sites; adhering to information technology security; and providing consultation and training on various information technology arenas.

Customer Support and IT Consultation and Training:
a) The Contractor shall provide the basic level of Customer Support and IT Consultation and Training given in Sections 4.7 and 4.8 of the statement of work (SOW) for all General IT Support Services.
b) Perform studies analyzing new technologies, analyzing feasibility of technical approaches, and analyzing existing environments, identifying constraints, deriving and analyzing alternative solutions, recommending approaches and solutions, and estimating costs and benefits.

Exceptions and Additional Requirements:
Computer systems will be set up to operate 24 hours a day, 7 days a week. Operations will be monitored by a software monitoring package during normal business hours (6 a.m. to 6 p.m. Eastern Time) and problems will be reported via email to designated persons who will respond and initiate proper corrective action. Systems shall also be monitored outside of normal business hours by a software monitoring system that upon any designated problem will send an email alert to the designated list of email recipients or a pager alert to ensure prompt resolution.

Since the NESC is supporting the Agency and tasks are acquired throughout all the NASA Centers, the contractor must be able to travel to Centers, universities, businesses, and partners. The TAM will direct the contractor when the travel need arises and request that they develop and finalize presentations, documentation, training materials, architectures,

schematics, and other documentation as needed in support of these trips.

General IT Support Services Performance Metrics

<u>Performance Standard</u>: Performance Standard: The systems to which these services apply are kept up to date with minimum disruption in capability due to upgrades. Minimum disruption is defined as an inoperable server for less than six (6) business hours.

<u>Performance Metrics</u>:

Exceeds: : All notifications of updates or upgrades are acted upon and all approved upgrades are installed on schedule and without distuption; or "meets" and improvements to systems are recommended and adopted.

Meets: All notifications of updates or upgrades are acted upon. All approved upgrades are installed with minor delays and disruptions.

Fails: Any of the requirements of this section are not satisfied.

<u>Performance Standard</u>: The contractor delivers product within costs and schedule.

<u>Performance Metrics</u>:

Exceeds: The contractor delivers application to the customer prior to scheduled delivery date and under cost.

Meets: The contractor delivers application to the customer on scheduled delivery date and within cost.

Fails: The contractor delivers application to the customer after scheduled delivery date and/or exceeds stated cost by more than 10%.

<u>Performance Standard</u>: Documentation is complete, understandable, and up to date.

<u>Performance Metrics</u>:

Exceeds: Documentation is error free, complete and up-to-date. Significant improvements have been made in the clarity of documentation or documentation is proactively sought from all sources. Documentation is complete and final within 15 business days.

Meets: Documentation is complete with only minor errors noted Documentation is complete and final within 30 business days

Fails: One or more required documentation components are not available or errors are noted that could compromise the operation or integrity of the applications.

<u>Performance Standard</u>: The systems software to which these services apply is fully operational and kept up-to-date with no significant disruption in capability. Significant disruption is defined as inoperable server for more than 6 business hours.

<u>Performance Metrics</u>:

Exceeds: "Meets" and anomalies or inefficiencies are recognized and reported to the vendor or the availability of superior software is recognized and reported to the line manager and TAM.

Meets: Software upgrades are installed and fully operational within 5 days of receipt (or approval, if later) with no loss of data.

Fails: Any of the requirements of this section are not satisfied

Performance Standard: The security of systems and data that fall under this task is ensured.
Performance Metrics:

Exceeds: The system meets the baseline IT security requirements for an information category with more stringent requirements than the information category of the system; there are no unpatched vulnerabilities, unless the vulnerability has been mitigated by other action, accepted by line management and approved by the LaRC IT Security Manager; user accounts are removed by the close of business of the day that the requirement for an account is terminated; any IT Security incidents are reported to the LaRC IT Security Manager and the NASA TAM/Alternate within 30 minutes of incident after they are discovered.

Meets: All baseline IT security requirements for the information category are either met or have a waiver for non-compliance from the LaRC IT Security Manager; the system is up-to-date with security patches or has scheduled the installation of such patches at the completion of a test that precludes immediate installation; user accounts are removed within one week of the termination of the requirement for an account; any IT Security incidents are reported to the LaRC IT Security Manager within 2 hours of incident after they are discovered.

Fails: The system does not comply with the baseline IT security requirements for the information category and does not have a waiver for non-compliance from the LaRC IT Security Manager; the system is not up-to-date with IT security patches; user accounts, for which the requirement was terminated have not been removed after a period of two weeks; the system has an IT security incident that is not reported to the LaRC IT Security Manager and the NASA TAM/Alternate.

Performance Standard: The systems software to which these services apply is fully operational and kept up-to-date with no significant disruption in capability. Significant disruption is defined as inoperable server for more than four business hours. Business hours are defined as Monday through Friday from 6 a.m. to 6 p.m. excluding federal holidays.
Performance Metrics:

Exceeds: Software upgrades are installed and fully operational within 3 days of receipt (or approval, if later) with no loss of data. Anomalies or inefficiencies are recognized and reported to the vendor or the availability of superior software is recognized and reported to the line manager and TAM.

Meets: Software upgrades are installed and fully operational within 5 days of receipt (or approval, if later) with no loss of data.

Fails: Any of the requirements of this section are not satisfied. Data is lost. Upgrades are done after agreed deadline.

Performance Standard: Product quality meets customer expectations.
Performance Metrics:

Exceeds: : Product performance exceeds customer's documented requirements and expectations. Product provides service to the customer beyond

anticipated use requirements. Customer provides written or verbal communication indicating the same.

Meets: The product performs as documented in the requirements and meets customer needs. Customer is satisfied with product and uses in the manner intended.

Fails: Product does not perform as documented in the requirements and customer expectations are not met. Customer is not satisfied with product and cannot use in the manner intended.

<u>Performance Standard</u>: The NESC website and any future applications, databases or websites that may or may not be developed under this task are maintained.

<u>Performance Metrics</u>:

Exceeds: The site is maintained in an up-to-date manner, with modifications made within two business days of being requested. There are no discrepancies with compliance to Federal, NASA or LaRC regulations or policies

Meets: The site is almost always up-to-date. Modifications are made within one week of being requested. There are only minor discrepancies with compliance to Federal, NASA or LaRC regulations or policies

Fails: The site is frequently out-of-date or not in compliance with Federal, NASA or LaRC regulations or policies

<u>Performance Standard</u>: Training and class materials are provided and are accurate and complete.

<u>Performance Metrics</u>:

Exceeds: Students rate teaching proficiency and class materials very good or excellent.

Meets: Students rate teaching proficiency and class materials as satisfactory. Training schedules are met.

Fails: Students rate teaching proficiency or class materials as unsatisfactory or inadequate.

<u>Performance Standard</u>: Deliverables are made on schedule; and meet project requirements and acceptance criteria.

<u>Performance Metrics</u>:

Exceeds: All deliveries are made on or ahead of schedule. The system or application meets the TA requirements without exception. No anomalies are found during testing.

Meets: Any delays in delivery are minor and are made up within the overall schedule. Only minor deficiencies are found that are readily correctable within the development schedule.

Fails: A delivery is more than 1 week late or overall schedule has slipped by more than 3 weeks. Deficiencies are found that will result in significant delays to correct.

<u>Performance Standard</u>: Consultation meets customer needs and training provided meets students' needs. Required reports are accurate and complete.

<u>Performance Metrics</u>:

Exceeds: Consultation and reports go beyond customer needs and are considered expert. Students rate teaching proficiency as very good or excellent. Training recommendations are made and adopted.

Meets: Consultation and reports address requirements adequately. Training schedules are met. Students rate teaching proficiency as satisfactory or better

Fails: Any of the requirements of this subsection are not met, or students rate teaching proficiency as unsatisfactory.

Performance Standard: Application developers communicate and engage systems and database administrators to ensure application and support systems are tuned for optimum performance.

Performance Metrics:

Exceeds: Holds various meetings with system and database administrators; implements recommendations from them; and discuss project prior to implementation.

Meets: Holds 2 meetings with system and database administrators at initial setup and 5-10 business days prior to implementation.

Fails: Holds no meetings with system and database administrators.

Performance Standard: System is initially set up in a timely fashion.

Performance Metrics:

Exceeds: The contractor sets up and allows user access to SAS 5 days prior to scheduled date. SAS has no vulnerabilities or vulnerabilities are mitigated to ensure system security. Schedule to be determined by the TAM/Alternate TAM and POC for this task.

Meets: The contractor sets up and allows user access to SAS on scheduled date. SAS has no vulnerabilities or vulnerabilities are mitigated to ensure system security. Schedule to be determined by the TAM/Alternate TAM and POC for this task.

Fails: The contractor sets up and allows user access to SAS after the scheduled date. SAS has no vulnerabilities or vulnerabilities are mitigated to ensure system security. Schedule to be determined by the TAM/Alternate TAM and POC for this task.

5. SYSTEM AND APPLICATION DEVELOPMENT SERVICES

None required.

6. WORK-AREA SPECIFIC SERVICES

Work Area Title: Customer Support

LaRC Manager: Dawn Schaible

Work Area Description: The contractor shall respond to customer support calls in a timely and high quality manner.

Work Area Requirements: The Contractor shall provide customer support to the NESC on their tools and applications. Customer support calls and desk-side support shall be provided by the contractor to the NESC and their detailees.

Training material or Training support will be provided for those applications and systems that are implemented. The TAM will determine which applications and systems will be implemented and supported by the contractor. The contractor will collaborate with the TAM and designees to establish an implementation schedule and training materials to support the implementation.

Performance Standard: The contractor is responsive to customer service requests during the evaluation period.

Performance Metrics:
Exceeds: Contractor responds to customer within 2 business hours of receiving the service request.
Meets: Contractor responds to customer within 2 - 4 business hours of receiving the service request.
Fails: Contractor does not respond to customer for over 4 business hours after receiving the service request.

Performance Standard: Quality customer support services are provided to the Center within the stated support thresholds during the evaluation period.

Performance Metrics:
Exceeds: The TAM receives less than 3 customer complaints during the evaluation period concerning lack of contractor service quality. The contractor does not exceed customer support thresholds as stated in the work area requirements except with the consent of the TAM.
Meets: The TAM receives 4 - 6 customer complaints during the evaluation period concerning lack of contractor service quality. The contractor does not exceed customer support thresholds as stated in the work area requirements except with the consent of the TAM.
Fails: The TAM receives more than 6 customer complaints during the evaluation period concerning lack of contractor service quality. The contractor does exceed customer support thresholds as stated in the work area requirements without the consent of the TAM.

Work Area Title: Document Management

LaRC Manager: Dawn Schaible

Work Area Description: The contractor shall place all documentation associated with the support of this task and its services under configuration control. All documentation shall be complete, concise, understandable and current. The documentation shall reside in a single location accessible to the TAM and all designees.

Work Area Requirements: The contractor shall:

1) Place all documentation associated with this task and its services into a central, well organized, and accessible location.

2) All documentation shall be placed in it's a native format and an alternative long-term format such as PDF.

3) The contractor shall revise the documentation as needed in a timely and quality manner.

4) The contractor shall make all documentation available to the TAM for review and comment.

5) The contractor shall review documentation annually to ensure it is accurate and up to date.

Performance Standard: Required documentation is accessible, current, easy to locate, and understandable.

Performance Metrics:
Exceeds: Documentation resides in a single location accessible through a web browser. The contractor modifies documentation and places it into the central repository within 16 business hours of direction to do so by TAM. Contractor maintains prior versions of the documents, accessible to the TAM.
Meets: Documentation resides in a single location. The contractor modifies documentation and places it into the central repository within 20 business hours of direction to do so by TAM. Contractor maintains prior versions of the documents.
Fails: The documentation is not accessible to the TAM. Following the TAMs direction, the contractor takes more than 20 business hours to modify and post the change. The contractor does not maintain prior versions of the documents.

Work Area Title: Website and Application Management

LaRC Manager: Dawn Schaible

Work Area Description: The contractor must develop, implement, and maintain websites and applications as defined by the requirements documentation. All must comply with federal, NASA, and LaRC policies and guidelines. The Contractor will maintain the existing NESC public website, and develop an internal NESC website, using the etouch CMS system. The contractor will work in collaboration with the TAM and designees to meet information technology needs of the NESC in a timely fashion. All delivered websites and applications must meet the NESC expectations and be user friendly.

Work Area Requirements: The contractor shall:

1) Develop and finalize all documentation to implement new websites and applications. Documentation includes, but is not limited to, requirements design, schedule, implementation plan, change logs,

2) All documentation shall be placed in a central repository that the TAM chooses. All documentation shall be placed in it's a native format and an alternative long-term format such as PDF.

3) The contractor must utilize database, systems, and web knowledge to ensure an efficient and effective tool for the NESC.

4) The contractor must utilize expertise in process development and documentation, scheduling, change management, technical, implementation, and transition.

Performance Standard: Expertise is available and utilized to support the tasks of the

NESC.

Performance Metrics:
Exceeds: The contractor provides the knowledge and expertise to meet the established schedules. Those resources are provided 5 business days prior to the schedule requirements to ensure that the individual becomes familiar with the project and the needs prior to their performing their duties.
Meets: The contractor provides the knowledge and expertise to meet the established schedules. Those resources are provided less than 5 business days prior to the schedule requirements to ensure that the individual becomes familiar with the project and the needs prior to their performing their duties.
Fails: The contractor provides the knowledge and expertise to meet the established schedules. Those resources are provided the day of the scheduled requirements.

Work Area Title: Systems Administration - SAS

LaRC Manager: Dawn Schaible

Work Area Description: The contractor shall set up and maintain the SAS server and RAID to support the NESC as defined by the Point of Contact, Robert (Bob) Beil. System must comply with federal, NASA, and LaRC policies and guidelines. The contractor will work in collaboration with the TAM and designees to meet information technology needs of the NESC in a timely fashion. The system shall be housed in Langley's Centralized Web and Database environment. The Centralized System/Web Administration and Services Task SLB033 will support minimal System Administration support which includes monitoring the system, ensuring security plan covers system, applying operating system patches, and ensuring the facility housing the system is adequate to meet customer needs. Systems administration for SAS and the RAID are to be covered by this task. Examples of some of the work to be performed under this task in the Systems Administration work are: initial installing and configuration of servers (production, test, development, etc.), reconfiguring existing servers to meet customer needs, providing user account management for SAS and RAID, providing expertise on SAS and the support RAID to continually support changing needs of NESC, etc. Support from a user perspective will also be offered to help researchers with the use of the SAS tool beyond system administration (for example, how to use the tool features, help with programming, help find solutions to specific data mining problems).

Work Area Requirements: The contractor shall:

1) utilize systems administration knowledge to ensure an efficient and effective tool for the NESC.

2) configure the SAS server and RAID in compliance with policies/procedures.

3) ensure user accessibility to SAS by collaborating with firewall, network, and IT security personnel.

4) proactively evaluate system and recommend enhancements to hardware, software, etc., to meet NESC's future needs.

5) attend training for the SAS data mining software.

6) support researches with the use of the SAS tool from a user's perspective

Work Area Title: Systems Administration - Opinio

LaRC Manager: Ken Johnson

Work Area Description: The contractor shall set up and maintain the Opinio Enterprise V5 Software to support the NESC as defined by Point of Contact, Rita Dal Santo. System must comply with federal, NASA, and LaRC policies and guidelines. The Opinio software package supports NESC's task to conduct customer surveys to obtain timely and appropriate feedback from their customers. All customers who are asked to participate in the survey have worked with the NESC in an official capacity, and the information collected will not include personally identifiable information. The contractor will work in collaboration with the TAM and designees to meet information technology needs of the NESC in a timely fashion. The system shall be housed in Langley's Centralized Web and Database environment. The Centralized System/Web Administration and Services Task SLB033 will support minimal System Administration support which includes monitoring the system, ensuring security plan covers system, applying operating system patches, and ensuring the facility housing the system is adequate to meet customer needs. Systems administration for Opinio is to be covered by this task. Example of some of the work to be performed under this task is the Systems Administration work are: initial installing and configuration of servers (production, test, development, etc.), reconfiguring existing servers to meet customer needs, providing user account management for Opinio, providing expertise on Opinio Software as required to continually support the changing needs of the NESC, etc.

Work Area Requirements: The Contractor shall:
1. Utilize systems administration knowledge to ensure efficient and effective tool for the NESC.
2. Configure the Opinio software on a server in compliance with policies/procedures.
3. Ensure user accessibility to Opinio by collaborating with firewall, network, and IT security personnel.
4. Proactively evaluate system and recommend enhancements to hardware, software, etc. to meet NESC's future needs.

Work Area Title: MAPS Support

LaRC Manager: Hope Venus

Work Area Description: The NESC provides comprehensive examination, testing, and evaluation of a diverse group of concurrent technical activities that support the broad range of the Agency's critical programs and projects. It improves the Agency's ability to achieve safety and mission success by sharing technical expertise throughout the Agency, academia, and industry. The Management and Technical Support Office (MTSO) assists in implementing the NESC's technical assessments by providing the methods to track assessment schedules and costs and securing government technical information. The MTSO also uses many types of business relationships for technical assessments such as (1) inter-Center task agreements, (2) existing contracts that allow additional tasks, and (3) new and unique contractual agreements. Many active business relationships exist concurrently and all require efficient business management. In support of NESC's many different technical activities and independent assessments, the MTSO is also responsible for financial management of the complete NESC program. Financial management is

currently accomplished using diverse financial tools for cost estimating, budgeting, cost tracking, reporting, project management, and other activities. Financial tools currently include many different processes, software, and spreadsheets to effectively manage NESC tasks and business/financial responsibilities.

The MTSO is currently developing a new tool called MTSO Analysis and Planning System (MAPS). MAPS will extract data from many different databases, software, spreadsheets, and other applicable sources and will place all independent required data in a single unified, easy to use system.

Work Area Requirements: The MTSO is in the process of testing the first release of MAPS, and will transition the software to the Contractor for maintenance and future development.

The Contractor shall assist the government with the implementation and maintenance support for MAPS. The Contractor will learn the application process, code and database. Once the Contractor is comfortable with the application, the Contractor shall obtain full maintenance support. The system requires BW data load. The frequency of the load is currently set to daily. The Contractor shall log onto BW daily, run a bookmark, save the file as a text file and upload the file to MAPS. During the implementation and maintenance support of MAPS, the Contractor shall also provide a system processing document that would outline the processing/business rules of the application. This is to help document the current process of MAPS to assist with future enhancements.

7. Exhibit A

None required.

8. SPECIAL SECURITY REQUIREMENTS

The information technology security requirements will be met and maintained regardless of any tool chosen by the TAM to implement.

9. SOFTWARE ENGINEERING PROCESS REQUIREMENTS

None required.

10. JOINT REVIEW SCHEDULE

A Joint Review shall occur biweekly to discuss this task. The time and length shall be mutually determined by the required attendees. The following persons or their alternates are required to attend: NASA TAM/Alternate and Contractor personnel assigned to task. Technical performance, timeliness, cost, and staffing will be discussed. The Contractor will maintain minutes; minutes from each meeting will be emailed to participants the following business day for review and corrected where necessary.

11. PERIOD OF PERFORMANCE

This TA is effective from 08/01/04 to 04/27/10

12. TECHNICAL PERFORMANCE RATING

In evaluating Technical Performance, quality and timeliness shall be rated as follows:

Quality: 60%   Timeliness: 40%

13. RESPONSE REQUIREMENTS

This Task Plan shall address the contractor's specific work plans, associated estimated labor hours, cost and schedule.

14. GOVERNMENT ESTIMATED COST

15. FUNDING INFORMATION
16. MILESTONES

None required.

17. DELIVERABLES

Number	Deliverable Item	Deliverable Schedule
1	Requirements Documentation	Five business days after consultation and tasked by the TAM.
2	Implementation Plan Documentation	Five to ten business days after tasked by the TAM.
3	Status Reports	Provide weekly status reports in coordination with the Project Lead's direction (may be via weekly meetings).
4	Training Material	Provide schedule to TAM for development, review, and finalization of training materials five business days after tasked by the TAM.
5	System Training	Travel to Centers, universities, businesses, and partners locations to provide training according to the level of training selected. Training material, invitations, schedule, logistics, etc. must be coordinated with TAM.
6	Training Results and Survey	Develop training results/survey (can be a document handed out at training) to verify/analyze for training effectiveness.
7	Meeting Notes	Take and distribute meeting notes for the NESC as requested.
8	Support	Provide documentation/presentation support, logistics support, copying and administrative support to the team.
9	Application Delivery	Deliver new applications and web sites as determined by the schedule for each new area

10	Schedules	Develop and deliver schedules for websites, applications, databases, implementation, five to ten business days after being tasked by the TAM.

18. FILE ATTACHMENTS

None.